USTELECOM | THE BROADBAND ASSOCIATION

September 4, 2019

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th St. SW
Washington, D.C. 20554

Re: Connect America Fund, WC Docket No. 10-90; Establishing the Digital Opportunity Data Collection, WC Docket No. 19-195; Modernizing the FCC Form 477 Data Program, WC Docket No. 11-10

Dear Ms. Dortch:

USTelecom writes to expand the record on issues related to the High Cost Universal Broadband (HUBB) portal following previous meetings with Wireline Bureau Staff and USAC.[1] Specifically, USTelecom writes to provide its recommendation for when USAC should treat a change to a reported location's geocoding as a "modification" as opposed to a "deletion." USTelecom has previously explained that its members report a substantial degree of geocoordinate variability based upon which commercial mapping vendor the carrier uses. As geocoding improves, USTelecom anticipates that many or even most of the edits that HUBB filers will make will be related to geocoordinates.[2]

USTelecom submits that a change to the fourth digit of a geocoded decimal (representing a change in accuracy of about 10 meters) would be a workable demarcation point for determining a change that required a deletion (versus a modification). However, the Commission should be aware that USTelecom members anticipate that a substantial number of corrected geocodes will qualify as "deletions" under this approach. Recent data submitted as part of the Broadband Mapping Initiative, a successful proof of concept pilot that sought to precisely geocode broadband serviceable structures in two states, particularly in rural areas, shows that the geocodes generated by commercial geocoding software used by participating carriers are frequently more than 10 meters away from the location of the served structure.[3] The pilot showed that 61 percent of the geocodes generated by commercial geocoders and submitted by participating providers in rural America are more than 7.6 meters away from the structure, 37

[1] *See* Letter from Mike Saperstein, Vice President, Policy & Advocacy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Mar. 28, 2019) (March 28 Ex Parte); Letter from Mike Saperstein, Vice President, Policy & Advocacy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Mar. 6, 2019).

[2] March 28 Ex Parte at 1.

[3] Letter from Jonathan Spalter, President & CEO, USTelecom, Genevieve Morelli, President, ITTA, Claude Aiken, President & CEO, WISPA, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 19-195, 11-10, 10-90, 19-126 (filed Aug. 20, 2019).

percent are more than 50 meters off the mark, and 25 percent are off by greater than 100 meters.[4] As better data becomes available, USTelecom members desire to update the geocoordinates in the HUBB in order to provide the Commission with as accurate information as possible. As the Broadband Mapping Initiative pilot report makes clear, the reason HUBB filers need to modify geocodes or delete locations and resubmit them with new geocodes is due to the poor quality of commercial geocoding, which is outside the control of the carriers. Such geocoding updates do not indicate any lack of deployment or a compliance issue.

In addition, as USTelecom has previously explained,[5] the use of the decimal point system as the deciding factor into whether an edit qualifies as a "deletion" or "modification" is problematic because the change in digit is not tied to any particular change in distance. The Commission should be mindful that a change to the fourth decimal could also be a minor edit to the geocode as each geocoordinate is fundamentally a number, and therefore each tenth of the decimal point is interrelated to the preceding tenth and can change accordingly. For example, if the six decimal points associated with a geocoordinate were .679999, a modification of only four inches in the real world (to the sixth digit of the decimal) would change the resulting geocoordinate to .680000, affecting the second through sixth numbers following the decimal point. While a change to the second tenth could represent an adjustment of over 3600 feet, in this example it only changed due to its interrelation with the other digits with an adjustment of just four inches. In other words, a change in a geocode digit does not necessarily correlate to the scale of the geographic adjustment or the degree of accuracy provided. Similarly, a change in the same decimal degree represents a different physical distance depending upon where in the world the location exists.[6] The fourth decimal place in decimal degrees corresponds to 11.13 meters (36.52 feet) north/south and east/west at the equator. Decimal degrees correspond to less distance east/west as one moves away from the equator (north or south). For example, the fourth decimal place corresponds to 10.25 meters (33.62 feet) east/west at 23 degrees of latitude, and 7.87 meters (25.82 feet) at 45 degrees of latitude. Because the digits are not always consistent, the Commission may also want to consider whether it would be more appropriate to choose a distance-based determination method (as opposed to digit based) for when an edit is a "modification" vs. "deletion."

Regardless of the decision on what qualifies as a "modification" vs. "deletion," USTelecom urges the Commission to decide the issue quickly so that carriers can begin updating the HUBB data in batch format as quickly as possible.

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[4] *Id.* at Attachment 7.

[5] March 28 Ex Parte at 1-2.

[6] Sarah Zhang, *How Precise is One Degree of Longitude or Latitude?*, Gizmodo (Sept. 5, 2014) https://gizmodo.com/how-precise-is-one-degree-of-longitude-or-latitude-1631241162.

Please contact me with any questions.

Sincerely,

_____/s/_____

Mike Saperstein
Vice President, Policy & Advocacy

cc: Gilbert Smith
Alexander Minard
Joelle Tessler (USAC)